

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	:
	:
Christopher MARTIN	: Confirmation No. 3785
	:
U.S. Patent Application No. 10/783,031	: Group Art Unit: 2182
	:
Filed: February 23, 2004	: Examiner: Aurangzeb Hassan

For: **DATA STORAGE DRIVE AND METHOD EMPLOYING DATA COMPRESSION**

**PRE APPEAL BRIEF REQUEST FOR REVIEW**

Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sirs:

It is respectfully submitted that the Examiner has erred in rejecting claims 22-27 and 29 under 35 U.S.C. §103(a) over U.S. Patent No. 6,069,763 to Aoki in view of Appellant's Admitted Prior Art ("AAPA"), and further erred in rejecting claims 22-27 and 29 as being obvious over a first AAPA embodiment represented in Fig. 4 ("AAPA4"), in view of a second AAPA embodiment represented in Figs. 2 and 3 ("AAPA23").

**Claims 22-27 and 29 are patentable over Aoki in view of AAPA**

First, the asserted combination of references does not teach or suggest all of Appellant's claim limitations. Appellant respectfully submits that notwithstanding the assertions of the Examiner, Aoki fails to disclose at least three features recited in claim 22.

1. Independent claim 22 recites, *inter alia*, a tape drive unit, comprising a data compressor engine capable of applying compression to an incoming data stream and outputting a compressed data stream that is received by "a buffer memory configured to store said compressed data stream." Unlike Appellant's device, Aoki, at column 4 lines 26-37, only discloses wherein data in the memory buffer 1 is transferred to, and written into, memory 41, and the information read out of

the FIFO memory 41 in the time axis correcting mechanism 4. Nowhere does Aoki disclose FIFO memory 41 receiving compressed data, as recited in claim 22. Although Aoki discloses, at column 5, line 67 - column 6, line 4, "data compressing or extending means for compressing or extending data in the second memory means," Appellant submits that the Examiner incorrectly interprets this text out of context. As clearly illustrated in Fig. 1A, memory 1 directly feeds FIFO memory 41 and output b, of FIFO memory 41 feeds tape recorder amplifier 7, of Fig. 2. Appellant respectfully submits that data compression is only performed when data output from memory 41, is amplified and placed on tape 10 by rotary head displacement control mechanism 5 and tape speed control 33. Based upon Figs. 1A and 1B, Appellant further submits that Aoki provides no suggestion or motivation to store compressed data in memory 41. Accordingly, Appellant's device is distinguished from that of Aoki.

2. Independent claim 22 further recites, "a monitoring element configured to monitor a data occupancy level of said buffer memory configured to store said compressed data stream." The Examiner asserts that Aoki, discloses a speed sensing mechanism at column 6, lines 1-5, and a residual amount sensing mechanism 2, at column 4, lines 18-25, that renders obvious the Appellant's monitoring element. Appellant respectfully disagrees. As previously presented, Aoki fails to disclose storing compressed data in memory 41. Indeed, Aoki fails to disclose, teach, or suggest storing compressed data anywhere, except on tape 10.

Furthermore, Aoki discloses wherein residual amount sensing mechanism 2 monitors memory 1 and not memory 41. Notwithstanding the fact that memory 41 does not store compressed data, Aoki fails to disclose, teach, or suggest monitoring the amount of data stored in memory 41, which the Examiner asserts corresponds to Appellants recited "buffer memory configured to store said compressed data stream." Accordingly, Appellant's device is distinguished from that of Aoki.

3. Still further, Appellant submits that Aoki fails to disclose, teach, or suggest "a control element configured to disable said data compression engine based upon a predetermined level of the data occupancy level of the buffer memory," as recited in claim 22. The Examiner asserts that column 1, line 59 - column 2, line 15, of Aoki discloses the Appellant's control element. Appellant respectfully disagrees and submits that this passage only provides background knowledge of tape drive systems that transfer data to tape at variable rates. The passage does not discuss compression, and is irrelevant to the Appellant's control element that disables data compression.

Furthermore, the Examiner admits that Aoki does not explicitly disclose a monitoring element to monitor the buffer comprising the compressed data, and relies upon AAPA, paragraph [0011], to remedy the deficiencies of Aoki. Appellant respectfully disagrees and submits that the data buffer illustrated in Fig. 2 is not configured to comprise compressed data, as recited in claim 22. The Examiner appears to consider a buffer containing uncompressed data (AAPA) the same as a buffer configured to store compressed data. Furthermore, paragraph [0012] of the AAPA discloses wherein occupancy level 201 is used as a control signal for determining tape speed past a tape head. Appellant respectfully submits, therefore, that AAPA fails to suggest, to one of ordinary skill in the art, using a signal from the compressed data buffer to control compression of data entering the buffer (Applicant's disclosed embodiment), as opposed to compressing data by varying tape speed, as disclosed by AAPA.

Independent claims 25, 27, and 29 are similar to claim 22 and are likewise patentable over the asserted combination of Aoki and AAPA. Dependent claims 23, 24, and 26 depend variously from these independent claims and are likewise patentable over the asserted combination of references for at least their dependence on an allowable base claim, as well as for the additional features they recite. Reconsideration and reversal of the rejections over Aoki and AAPA is courteously solicited.

#### **Claims 22-27 and 29 are patentable over AAPA4 in view of AAPA23**

The Examiner asserts that AAPA4, i.e., the tape drive unit illustrated in Appellant's Fig. 4, discloses all features of claim 22, 25, 26, 27, and 29 except for explicitly disclosing the monitoring and control element claimed by Appellant. Appellant respectfully disagrees, and as presented above, submits that neither AAPA4 (Fig. 4), nor AAPA23 (Figs. 2 and 3), taken as a whole, suggests Appellant's claimed data processing device that compresses data before being loaded onto tape, storing the compressed data in a buffer. Indeed, taken as a whole, one of ordinary skill in the art would not be motivated to compress data at all, let alone compressing data and controlling the compression of data as recited by the Appellant.

Dependent claims 23, 24, and 26 depend variously from independent claims 22 and 25 and are likewise patentable over AAPA for at least their dependence on an allowable base claim, as well as for the additional features they recite. Reconsideration and reversal of the rejections over AAPA is courteously solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 08-2025 and please credit any excess fees to such deposit account.

Respectfully submitted,

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